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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/832,632	04/11/2001	Klaus Kapfer	6504-1228	1808

7590 01/15/2004

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EXAMINER

LUK, EMMANUEL S

ART UNIT

PAPER NUMBER

1722

DATE MAILED: 01/15/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/832,632

Applicant(s)

KLAUS KAPFER

Examiner

Emmanuel S. Luk

Art Unit

1722

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 May 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) 10-12 and 15-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9, 13 and 14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. Claims 1-7 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abrams et al (5591384) in view of Hendry (2627087).

Abrams teaches a screw type compounding unit having a housing (Fig. 3), a screw (30), an motor (75), metering device (40, 30) and metering motor (42, 75), processing unit (18, 118) and a controller (32). The controller (32) is able to trigger the drive motor (92) of the screw (30), the knife driver (118) via control block (106) and the motor of the agitator (40) via control box (44). A press (18) is located downstream of the extruder (Fig. 1) having a conveyance system (190) for bringing the material to the mold (20).

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Abrams fails to teach a controller processing cycle times to the units and plunger-injection molding machine.

Abrams teaches the various controls of the units during operation including activation of the units in response to pressure and temperature programmed for the material. Hendry teaches an apparatus having an extruder (17) and plunger-injection (11) into a mold (16), the control of the plasticizing motor (23,24) and the metering of the ram (13) via electronic control device (25) having an electronic timer (26), the control allows for timing of the screw and ram. Both the press and injection molding machines are well known molding units in the molding arts.

It would have been obvious to one of ordinary skill in the art to modify Abrams with the controller and plunger-injection molding machine as taught by Hendry because it allows for automatic controlling with adjustments for the machine to permit sufficient operations and for use in a variety of molding machines. The adjustments in cycle and operation times of the units are optimum times found through routine experimentation.

4. Claims 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Abrams in view of Hendry as applied to claims 1-7 and 9 above, and further in view of Scheuring (5879602).

Abrams fails to teach an inlet for rovings.

Scheuring teaches an extruder (38) having an inlet (35) for mixing of fibers into the extruder for production of a unidirectionally reinforced pultrusion profile with excellent surface quality (Col. 8, lines 5-6). In regards to rovings, this is an intended

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use of the inlet in the apparatus and other materials can be added into the extruder via inlet, including colorants.

5. Claim 13 and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Abrams in view of Hendry as applied to claims 1-7 and 9 above, and further in view of Coon, Sr., et al (2691218) or Fisher (British Plastics).

Abrams fails to teach double screws.

Coon, Sr. teaches double screws (156,158) used in an extruder (160; seats) for molding butter. The use of twin screws in the molding arts is well documented and is also shown by Fisher (British Plastics) with a twin screw plasticizer (Fig. 4, page 419).

It would have been obvious to one of ordinary skill in the art to modify Abrams with substitution of the screw with twin screws as taught by Coon, Sr., or Fisher, because it has the equivalent function in an extruder.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Roess, Langlois et al, Aoki et al and Nakamura.

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Emmanuel S. Luk whose telephone number is (571) 272-1134. The examiner can normally be reached on Monday-Thursday 7 to 4 and alternate Friday.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wanda L. Walker can be reached on (571) 272-1151. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

EL


W. L. WALKER
SUPERVISORY PATENT EXAMINER
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